ABSTRACT: Ayurveda describe the organization of the body in term of doshas, dhatus and malas. Twacha is one among the upadhatus which provide protective layer over the body that protect from the heat, cold & external infection. The union of Shukra (spermatozoa) & Shonita (ovum) while being cooked (processed by heat) give rise to the formation of seven twaka (skin) just like formation of cream when milk is boiled. Acharya Susruta and other Acharyas are described twaka shareeram in detail. Acharya Susruta defined Twacha as Upadhatu of mamsa dhatu. Twacha is one among the Panch jyanendriya, which carry sensation of touch.& It covers external part as well as internal part of body. Since antiquity human being often suffered from many type of diseases, out of them skin disease is one of the major problem for the community, because there is a change in the structural appearance of the skin & it make entire body ugly. There are different theories among the Acharyas regarding the number of layers. Acharyas Charaka consider that Twacha is made up of six layers where others. Acharya Susruta considers seven layers. In this layers of twacha, different type of diseases observe in different layers. Out of this, a very commonly seen “Visarpa” disease is found in one of the Twacha layer. “Visarpa” is one among the type of skin disorder which is common and acute disorder of Twacha. Acharyas describe symptoms of Visarpa like – spreading character, Inflammation, Pricking type of pain, Fever, Vesicles, Segmental spreading, Redness, Rapid spreading. Although Twacha has been explained in our classic, we get very vague and very less description about the disease related to Twacha shareera. And it is outermost protective layer of the body, so it becomes essential to know the structural and anatomical changes occur in the Visarpa. Now a day’s Visarpa disease largely spread in the human being. While diagnosing the patients of Visarpa, there is difficulty regarding the identification of structural deformity, hence need is felt to study the Visarpa & twak shareera.

Key words: - Twacha shareera, Visarpa, Inflammation, skin
INTRODUCTION

The shareera a branch of medical science that deals with the structural and functional aspects of a living body is important for the achievement of goals of the medical branches and the prevention and the treatment of diseases of entire human kind. For any successful Vaidya or Shalya Chikitsaka thorough knowledge of Shareera is very essential for diagnosis and treatment or to perform surgical procedures. The physician will become greatly learned only after observing the body carefully (with his own eyes), study of the science; getting rid of doubts by personal observation and study of texts, he should carry on his activities. But these are many structures in the human body which cannot be visualized by naked eyes. It is possible to explain these minute structures only in this modern era with the help of advanced technology which has given us Zoom view. Although in ancient classics some description of such minute structures is available. It was possible for Acharyas with the help of “Gnyanachakshu” and “Tapaschakshu”. Acharya Susruta explained it is not possible to see with the physical eyes the very minute Vibhu (Atma or soul) in the body; he can be seen with Gnyanachakshu (Eye of Knowledge). Here Gyanachakshu means knowledge obtained by study of texts. Tapaschakshu (Eye of penance). Here Tapaschakshu means obtaining knowledge from meditation. In Ayurvedic texts knowledge of Ayurveda is classified in eight main branches. Kaya (Medicine), Bala (Pediatrics), Grahachikitsa, Urdhwanga (Ophthalmology & ENT), Shalya (Surgery), Danshtra (Toxicology). Jara (Rejuvenation)
and Vrishana (Virilification) are the eight branches of Ayurveda. The knowledge of these eight branches is present in various texts like Brihatrayi, Laghutrayi and other textbooks. The authors of these texts have given special contribution to a particular branch. So they are considered master of that branch. Acharya Susruta is master in Shareera (Anatomy), Acharya Charaka is master in Chikitsa (Medicine), Acharya Madhava is famous for Nidana (Diagnosis) and Acharya Vagbhata is famous for basic principles of Ayurveda described in Sootrasthana. In Susruta Samhita, Acharya Susruta has described the structures of human body in detail. He studied the human body by the technique of human body preservation and dissection which is very much different from today’s method Acharya Susruta was the first to dissect human body In Shareera sthana of Susruta Samhita, detail knowledge of human body is present. In Garbhavakaranadhyaya, a detail description of Twacha Shareera is present which will be studied in further topics. Also relation of Tamra Twacha and Visarpa will be studied.

Aims and Objectives

1. The comprehensive and structural study on Twaka shareera as mentioned in the texts, view of regional and applied anatomy in the contemporary science.

2. To give appropriate & elaborate description on Visarpa and its relation with the 5th layer of skin is Vedini.

3. The main aim is to Study the Visarpa and its Structural abnormalities caused during disease.

Review of Literature

Review of Twacha Shareera:

In any field of medicine, Theoretical knowledge should be accompanied by practical knowledge. With only of these, one cannot be perfect. The knowledge observed by direct perception and that obtained by the study of the science, both together make for enhancement of one’s knowledge. It is always helpful to expand the boundaries of knowledge in any field. As far as concerned to Shareera Rachana, one must have good theoretical knowledge with perfect and right concepts in mind accompanied with dissection of the human body to confirm the concept and ideas. Acharya Susruta has described all the structure of human body by doing dissection. His method of dissection was very unique and much different from today’s method.

After stating how an ideal dead body should be, technique of preservation and decomposition of the dead body, he tells to start dissection from outermost covering of the
body i.e. skin. After full decomposition of the dead body Susruta tells to separate layers of skin one by one and to go deep to visualize structures underneath the skin. From this, it is crystal clear that skin is the outermost covering of the body. Description of various parts of the body commencing with the skin (and all the other organs) furnished so far, cannot be obtained apart from Shalya gnyana. Here Shalya gyana means knowledge of science of surgery by any body.

**Definition:**

The external covering of the body is called Twak or Twacha. A type of Indriya which envelop the body is called Twagindriya or Sparshanendriya. As per Charaka, Twacha which cover the entire body with shadanga shareera.

**Etymology Of Twacha:** Twag + Kwip

**Number Of Twacha:** There is a great controversy in various Ayurveda texts regarding number of Twacha. After studying above lines we come to the conclusion that Acharya Charaka, Vrudda vagbhata, Bhela and Kashyapa have stated 6 types of Twacha. While Acharya Susruta and Vagbhata Bhavaprakasha have stated seven type of Twacha.

**Different Type Of Twacha In Brihatrayi And Laghutrayi:**

**In Brihatrayi:**

**A. Charakasamhita:-** In Shareerasankya Shareera Adhyaya of Shareera sthana, Acharya Charaka has described six types of Twacha.

**According to Charaka 6 types of Twacha:**

1. **Udakadhara:** It is an outermost layer of Twacha. As per the name, it holds Rasadhatu and Lasika inside the body and prevents their loss from the body.
2. **Asrukdhara:** It is the layer next to Udakadhara which has supplied by numerous blood vessels and it hold blood inside the body. Acharya Charaka has given names, only for first five layers of Twacha. He described next layers of Twacha on the basis of Vyadhi occurring in them.
3. The third layer is the seat of manifestation of Siddma and Kilasa.
4. The fourth layer is the seat of manifestation of Dadru and Kushta.
5. The fifth layer is the seat of manifestation of Alaji and Vidradhi.
6. The sixth layer is one on excision of which causes loss of consciousness.

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**SUSRUTA SAMHITA:** 14

In Garbhavyakarana Adhyaya of Shareera sthana, Acharya Susruta has described seven types of Twacha, their thickness and diseases occurring in each layer. These seven types of Twacha are as follows, the first and outermost layer of Twacha is AVABHASINI which reflects all sort of complexion, also brightens five types of shades. It is seat of Sidhma and padmakantaka, The Second layer is called as LOHITA and is the seat of Tilakalaka, Nyachha and Vyanga, The third layer is SHWETA and it is the seat of Charmadala, Ajagallika and Mashaka,The Forth layer is called TAMRA which is the seat of various types of Kilasa and Kushta, The Fifth layer is VEDINI which is the seat of Kushta and Visarpa, The sixth layer is ROHINI which is the seat of Granthi, Apachi,Arbuda, Shlipada Galaganda

The innermost and seventh layer is MAMSADHARA which is the seat of Bhagandara ,vidradi and Arsha.

**ASHTANGA SANGRAHA:** 15

In Anga Vibhaga Shareera Adhyaya of Shareera sthana, Vridda Vagbhata has described seven layers of Twacha

Acharya Vagbhata has given description of Twacha more or less similar to Charaka. According to him.

1. **ASHTANGA HRIDAYA:** First layer is Udakadhara.
2. Second layer is Asrukdhara.
3. Third layer is the seat of Sidhma and Kilasa
4. Fourth layer is the seat of all types of Kushta.
5. Fifth layer is the seat of Alaji and Vidradhi.
6. Sixth layer is Pranadhara.

Acharya Vagbhata has not given any details of Twacha except the genesis of Twacha.

**IN LAGHUTRAY**

**SHARANGADHARA SAMHITA:**

In Kaladikakkyana Adhyaya of Prathamakanda, Sharangadhara described seven Twachas

According to Sharangadhara: 16

1. First layer is Avabhasini seat of Sidhma.
2. Second is Lohita of Tilakalaka
3. Third is Shweta seat of Charmadala
4. Fourth is Tamra seat of Kilasa and Shwitra.
5. Fifth is Vedini seat of all Kushta.
6. Sixth is Rohini seat of Granthi, Ganda, Apachi.
7. Seventh is Sthoola the seat of Vidradhiand it is thick equal to two vrihi.

**MADHA VANIDANA:**

There is no description regarding Twacha in Madhava Nidana

**BHAVAPRAKASHA:**

According to Bhavaprakasha there are seven types of Twacha.
1. The first is Avabhasini which is the seat of Sidhma.
2. The second is Lohita seat of Tilakalaka.
3. The third is Shweta seat of Charmadala.
4. Fourth is Tamara seat of Kilasa and Shwitra.
5. Fifth is Vedini which is the seat of all Kushta.
6. Sixth is Rohini which is the seat of Granthi, Ganda and Apachi.
7. Seventh is sthoola, the seat of Vidradhi.

**Thickness Of Twacha:**

In various Ayurvedic texts, there is a description of Twacha, its layers and diseases occurring in each layer of Twacha. Susruta Samhitas unique for the description of thickness of Twacha. Here, Susruta describes thickness of Twacha in the measurement of Vrihipramana. (Vrihi-Rice Grain) So, Avabhasini Twacha is thick = 1/18th part of 1 Vrihi and likewise about other layers of Twacha. But this measurement of Twacha is not throughout same for all body parts. It differs according to various body parts. The measurement of thickness of Twacha mentioned above is applicable for only thick skin on muscular parts of the body. It is not applicable for forehead and small fingers. According to Dalhana, a commentator of Susruta Samhita twenty parts of 1 rice grain should be and then thickness of Twacha should be determined e.g. Avabhasini Twacha is thick =18/20 of 1 Vrihi. So, according to Susruta and Dalhana, there is a great controversy regarding thickness of Twacha.

Susruta: 3.5 Vrihi Dalhana: Appr.6 Vrihi

If practically observed, the thickness of Vrihi measures average 1mm. So, the thickness of Twacha told by Susruta and Dalhana expressed in Modern measures will be: Susruta: 3.5 mm Dalhana: Appr.6mm. If we want to compare this measurement with modern measurements (skin thickness = 1.5 to 4 mm), then Susruta seems to be perfect and more accurate in telling thickness of skin. Because according to Dalhana, it becomes 6mm which is highly impossible.

**NORMAL SKIN:**

The skin is tough and a uniform protective covering of the entire surface of the body and deeper tissues, with its all derivatives know as
Integument (Latin – a covering). It contains the peripheral ending of many sensory nerves. Skin regulates body temperature and possesses limited excretory and observing powers. In adults skin covers about 2m² area and has weight of approximately 4-5kg. Its thickness is 0.5 – 4 mm depending on its location. The thickness of the skin increases gradually after birth until age of 30 and then slowly begins to thin down. The human skin shows wide regional variation in structure like scalp, face, ear lobes, back, palms and soles etc. The skin is a largest organ in the human body it consist of vascular connective tissue named corneum dermis and an external covering of epithelium called as epidermis. The sweat gland, sebaceous glands and hair follicles are embedded beneath it and called as appendages of development of skin in foetus, Deep to dermis is sub-cutaneous layer this layer is also called superficial fascia or hypodermis, consist of aeriliar and adipose tissues. Fibres from dermis extent into the sub-cutaneous layer in turn attaches to the underline tissues and organs. So, the skin is composed of 3 distinct layers from surface of downward and they are,

1. Epidermis
2. Dermis
3. Hypodermis.

Epidermis - Surface ectoderm, melanoblast (dendritic cells) from neural crest.
Dermis - Mesenchyme derived from dermatomes of Somites.
Nails - Ectoderm of each digital tip, later migrates to dorsal surface.
Hair - Surface ectoderm, which is modified to form hair follicles.
Sebaceous glands – Arise as diverticula”s from hair follicles.
Sweat glands - Develop as down growth from the epidermis later canalized.
RESULTS

For the observation based on literary and histopathological study, According to Acharya Sushruta there are seven types of Twacha and out of these seven Twacha. Visarpa occurs in Fifth layer of Twacha i.e.: Vedini, Acharya Susruta seems to be more accurate in telling thickness of Twacha His measurement of thickness of all the layers of Twacha expressed in modern units is very much similar to the thickness of skin given in modern texts, Visarpa vyadhi and Herpes zoster a type of skin disease have most of the same symptoms which are correlated on the basis of literary, histo-pathological and clinical study of both Ayurveda and modern science, Visarpa is mostly correlated with the Herpes zoster or shingles because varicella zoster virus is member of herpes virus family and cause Chickenpox and Herpes zoster. As per Samhita Roopa or symptoms explained by Acharyas. After histopathological study the acantholytic cells are seen in pemphigus and multinucleate giant cells appearance is seen under microscope. After report of skin biopsy, Stratum spinosum and Papillary layer of dermis are affected in most of the patients and Reticular layer of dermis is affected in very - few patients.

CONCLUSION

1. It is conceptual observation study entitled study of Twak shareera w.s.r Visarpa.
2. Visarpa is a disease is mentioned as the one of the Twak disorder and this disease is very well correlated to Herpes Zoster.
3. In this study it was observed that the Visarpa is mainly seen in between age group of 28 to 37 years (60%) and it is more common in males (53%) and may be because of more intake of mixed diet and consuming more Katu, Tkita, Amla aahara rasa and it is cause Pitta prakopa. It is also shown its role in the causes of the disease.
4. About the site of Herpes Zoster out of 30 patients 2 patients in Facial region, 7 patients in thorax, 2 patients in wrist joint, 4 patients in groin region, 3 patients in axilla region, 8 patients in thigh region and 4 patients in Back are prone appear Herpes zoster.
5. Out of 30 patients Lesions / Vesicles found in almost all the cases.
6. Shotha, Nistoda, Ragata found in almost all the cases.

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